

REMARKS

Applicant hereby submits additional Claims 25 and 26 for the Examiner's consideration. These claims are also believed patentably distinguishable from the prior art of record.

Claims 25 and 26 further emphasize that the automatic braking device of the invention operates independently of the manual control provided to the vehicle by an operator without requiring additional transmitter signals other than said transmitter signal from which said control signal is generated. As discussed previously, the James patent does not envision manual control by an occupant during driving on a roadway but instead automatically controls all of the steering, acceleration and braking of the vehicles on the highway system.

Applicant's invention instead relates to a system for manually controlled vehicles which allows for detection of a danger and allows for an automatic reduction in the traveling speed of the vehicle in response to this danger state. In this regard, a target traveling speed is stored within the vehicle and when the transmitter signal indicates that a danger state is present, then the automatic braking device responds to the presence of a control signal generated within the vehicle to initiate and continue braking of the vehicle until it reaches the target traveling speed. This is conducted essentially independently of the operator's control to ensure that the vehicle avoids the danger state. As such, once the transmitter signal is received in the vehicle, the transmitter signal no longer is required to effect the automatic braking of the vehicle since it has already transmitted the necessary information to the vehicle that a danger state is present and the target traveling speed has been set within the vehicle such that the automatic braking device need only brake the vehicle until the actual traveling speed reaches this target speed.

The James patent, however, requires that a continuous control signal be provided to the vehicle. If this control

signal were removed, it is believed the vehicles thereof would lose direct control by the system and crashes could result. With the present invention, the system does not attempt to operate the vehicle for the occupant. As such, the automatic braking device does not require continuous receipt of the transmitter signal but need only receive the transmitter signal to indicate the presence of the danger state after which, the automatic braking device continues to effect braking until the target traveling speed is reached.

In Tognazzini, Tognazzini discloses a system of sending multiple communications to a driver to drive a vehicle. While there is some reference in James that the system thereof could be operated, such as in Column 5, there is no disclosure, teaching or suggestion in Tognazzini of Applicant's claimed invention of setting a target traveling speed and then using a transmitter signal to automatically slow to this speed.

As to Claims 25 and 26, Applicant respectfully requests consideration of these claims and submit that these claims are in condition for allowance.

Additionally, Applicant further supplements the prior discussion of the Tognazzini and James patents relative to Claims 11, 12, 13, 16, 19 and 22.

More particularly, Applicant further submits that the brake in James is operated as long as the vehicle receives waves from the transmitter and thus requires constant communication with the transmitter. If this transmission signal is disrupted, this is believed to cause problems for the vehicles of James. As such, the vehicles of James may never reach their intended speed in the absence of a transmitter signal such as due to signal interruptions or interference. Due to the precise operation of the vehicles in James as discussed in Applicant's prior Response dated May 30, 2003, control of the vehicles in James must be precisely controlled.

However, for the claimed invention, the target traveling speed is stored in the vehicle, and the vehicle need only

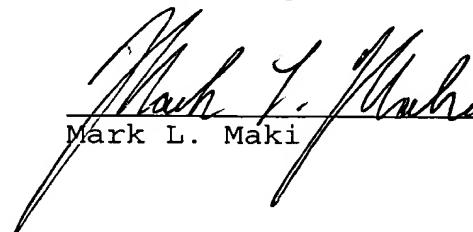
receive the transmitter signal which thereby generates a control signal in the vehicle that causes the automatic braking device to operate. This automatic braking device reduces the speed of the vehicle to the target traveling speed. Constant communication with the transmitter is not required to achieve this reduction to the target traveling speed.

As for Tognazzini, the warning system of Tognazzini intends to provide constant traffic information to a driver as indicated in the substantial majority of the disclosure thereof. The information transmitted is content information or a message indicating to the driver actions which should be manually taken with the vehicle. Further, the information communicated can be detailed and addressable or specific to a specific vehicle such as an indication to accelerate rather than brake.

Thus, both James and Tognazzini do not have a target traveling speed stored in a vehicle where braking is automatically effected to slow the vehicle to the target traveling speed. Rather, both references communicate information from the roadway to the vehicles to effect controlled operation of the vehicles. Further, the Tognazzini and James systems are distinctly different such that isolated features of the Tognazzini system are not obvious to adapt to the completely different system of James.

In view of the foregoing, Applicant respectfully requests consideration of Claims 25 and 26 and the comments provided herein when considering the allowability of all of the pending claims in this application. Further and favorable consideration of this application is respectfully solicited.

Respectfully submitted,

  
Mark L. Maki

MLM/cc